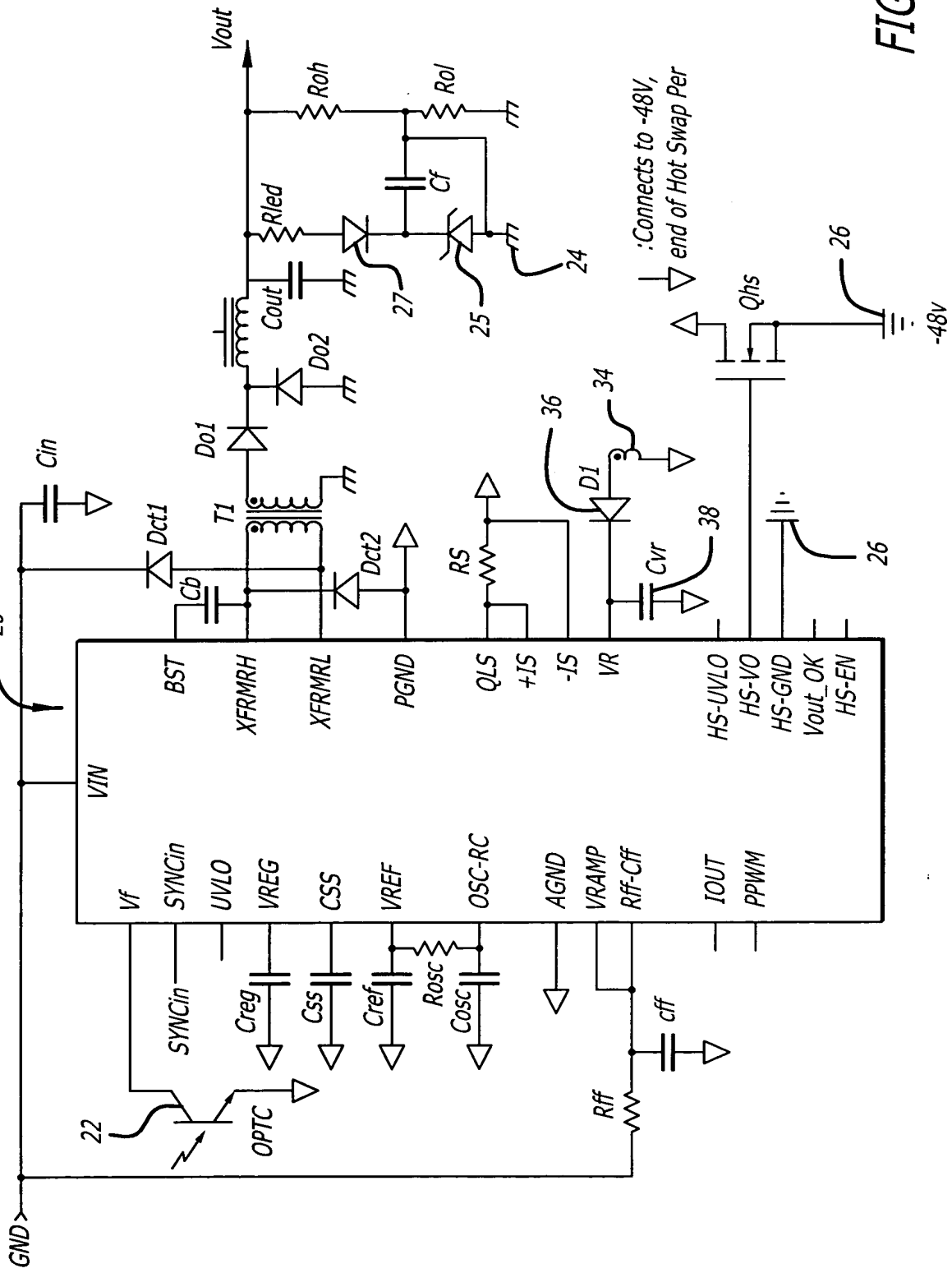

FIG. 1

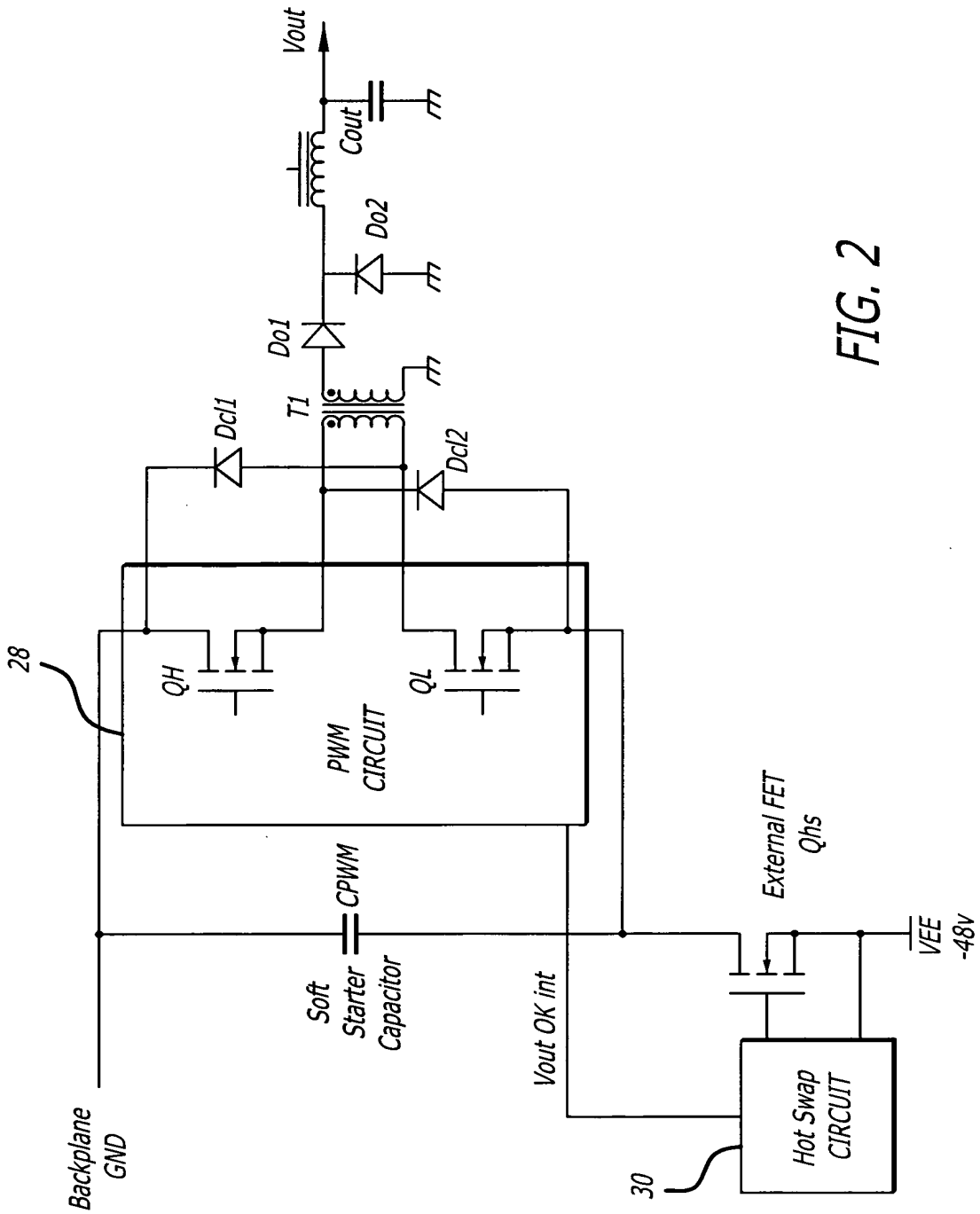
Vout
Cout
Do2
Do1
T1
Dcl1
Dcl2
28
QH
QL
PWM
CIRCUIT
CPWM
Soft
Starter
Capacitor
Vout OK int
External FET
Qhs
VEE
-48v
Backplane
GND
30
Hot Swap
CIRCUIT

FIG. 2

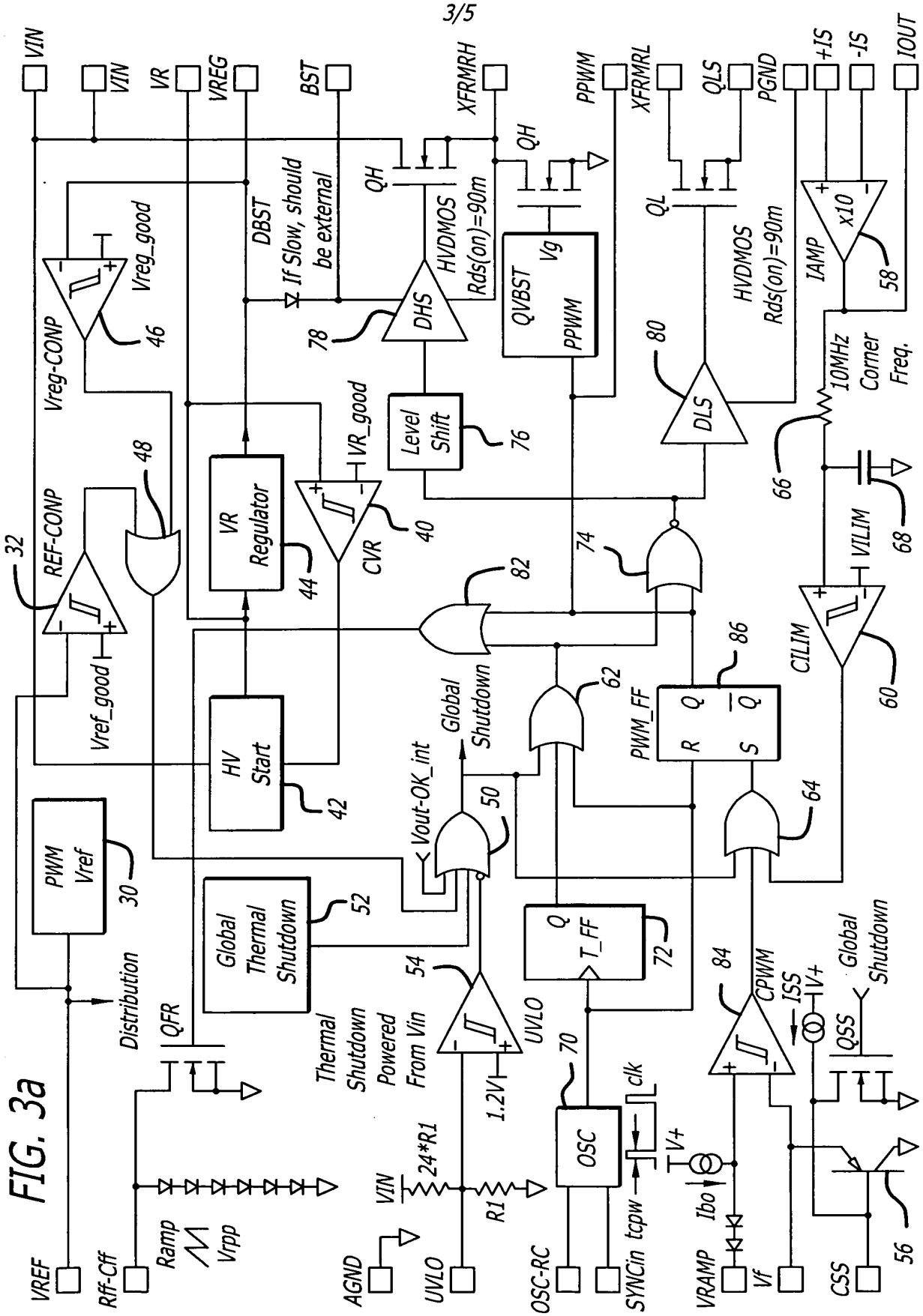
VIN
VIN
VR
VREG
BST
XFRMRH
PPWM
XFRMRL
QLS
PGND
+IS
-IS
IOUT
QH
QL
DBST
If Slow, should be external
HVDMOS
Rds(on)=90m
Vreg_good
Vreg-CONP
46
78
DHS
QVBST
Vg
PPWM
80
DLS
IAMP
x10
58
66
10MHz
Corner
Freq.
68
VILIM
CILIM
60
48
REF-CONP
32
VR
Regulator
44
VR_good
CVR
40
Level
Shift
76
74
82
Vref_good
HV
Start
42
Global
Shutdown
62
PWM_FF
R
S
Q
86
64
PWM
Vref
30
Distribution
Global
Thermal
Shutdown
52
Vout-OK_int
50
54
UVLO
1.2V
Thermal
Shutdown
Powered
From Vin
Q
T_FF
72
70
OSC
clk
84
CPWM
ISS
V+
QSS
Global
Shutdown
QFR
24*R1
R1
VIN
Ramp
Vpp
Rff-Cff
VREF
AGND
UVLO
OSC-RC
SYNCin
tcpw
V+
Ibo
VRAMP
Vf
CSS
56

FIG. 3a

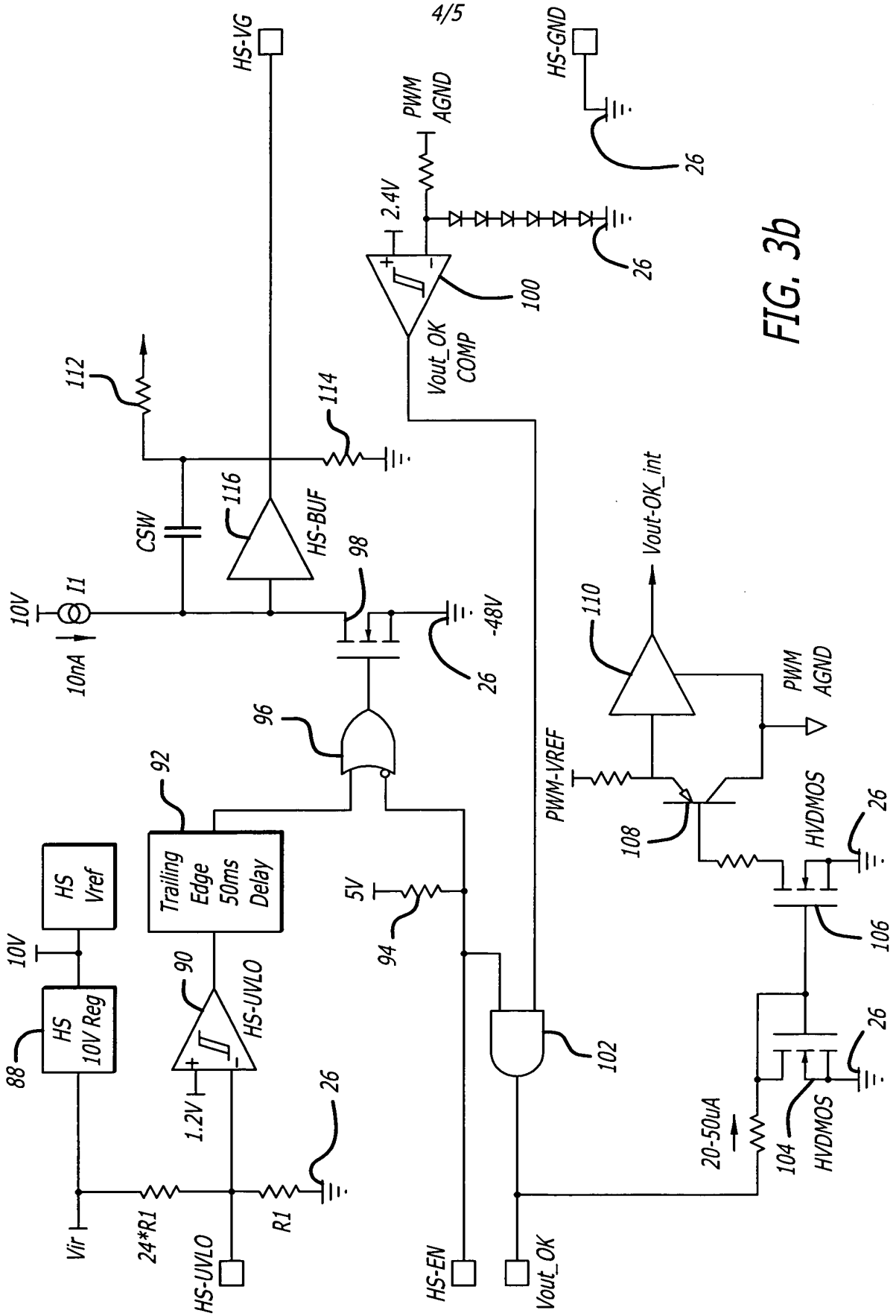
HS-VG
HS-GND
PWM AGND
2.4V
26
100
Vout_OK COMP
112
114
116
CSW
HS-BUF
98
10V
I1
10nA
-48V
96
92
Trailing Edge 50ms Delay
HS Vref
10V
HS 10V Reg
88
90
HS-UVLO
1.2V
26
Vir
24*R1
R1
HS-UVLO
5V
94
HS-EN
102
Vout_OK
Vout-OK_int
110
PWM-VREF
108
PWM AGND
HVDMOS
106
104
20-50uA

FIG. 3b

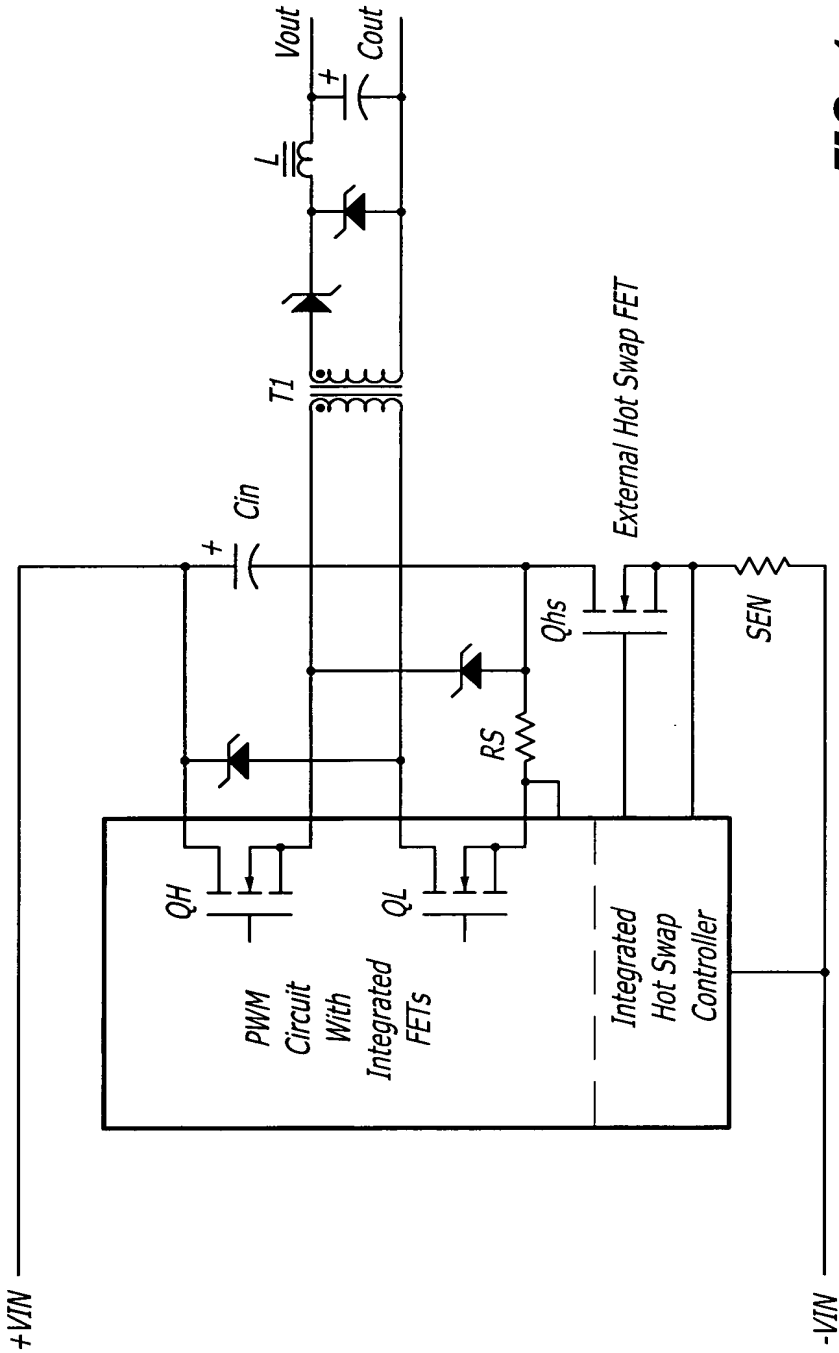
Vout
Cout
L
T1
Cin
External Hot Swap FET
Qhs
SEN
RS
QH
QL
PWM Circuit With Integrated FETs
Integrated Hot Swap Controller
+VIN
-VIN

FIG. 4